

Fw Fw Revised Air Emissions Information for the Immobilization Module for PuD SEIS.txt

From: Cynthia Williams [REDACTED]
Sent: Wednesday, October 06, 2010 9:37 AM
To: Dimarzio, John A.; Brent Blunt; Clayton (Barry) Shedrow; Gregory Burbage
Subject: Fw: Fw: Revised Air Emissions Information for the Immobilization Module for PuD SEIS:

Attachments: pic06334.gif

----- Original Message -----

From: Linda Nass
Sent: 10/05/2010 07:08 AM EDT
To: Cynthia Williams
Subject: Re: Fw: Revised Air Emissions Information for the Immobilization Module for PuD SEIS:
Cynthia,

The revised diesel emission data is as provided in email below. Please see one change (typographical) to process emissions data (exponent for Ci Pu-238 without hepa/SF in-place should be 4.749E-02 instead of E-03; this does not change the Total).

Linda S. Nass
[REDACTED]

From: Greg Burbage [REDACTED]
To: Linda Nass [REDACTED]
Cc: Cynthia Williams [REDACTED], Clayton Shedrow [REDACTED]
Brent Blunt [REDACTED], James Fudge [REDACTED]
Date: 09/30/2010 01:22 PM
Subject: Fw: Revised Air Emissions Information for the Immobilization Module for PuD SEIS:

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Linda, please revisit your previous information to SAIC and respond to Cynthia's (SAIC's) question. Please copy me with your reply. Thanks.

----- Forwarded by Greg Burbage [REDACTED] on 09/30/2010 01:21 PM -----

From: Cynthia Williams [REDACTED]
To: Greg Burbage [REDACTED]
Cc: Clayton Shedrow [REDACTED], Brent Blunt [REDACTED]
Date: 09/30/2010 12:51 PM
Subject: Fw: Revised Air Emissions Information for the Immobilization
Module for PuD SEIS:

Greg,

Are you okay with the May 2008 data?

Cynthia Williams

[REDACTED]

----- Forwarded by Cynthia Williams [REDACTED] on 09/30/2010 12:49 PM -----

From: "Dimarzio, John A." [REDACTED]
To: <Cynthia.Williams [REDACTED]>
Cc: <sachiko-w.mcalhany@nnsa.srs.gov>, <virginia.kay [REDACTED]>, <clayton.shedrow [REDACTED]>, "Werth, Robert H." [REDACTED], "Roles, Gary W." [REDACTED]
Date: 09/30/2010 12:33 PM
Subject: FW: Revised Air Emissions Information for the Immobilization
Module for PuD SEIS:

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In May of 2008, Linda Nass provided revised diesel generator air emissions information for the immobilization capability. We will use this information unless otherwise directed.

From: Werth, Robert H.

Sent: Thursday, September 30, 2010 11:32 AM

To: Dimarzio, John A.

Cc: Roles, Gary W.

Subject: RE: Revised Air Emissions Information for the Immobilization Module for PuD SEIS:

John –

In the 2010 Immobilization data call response, the diesel generator emissions given are still the old ones shown in the 2008 response, not the revised ones that Linda Nass had provided in May 2008 – see below. I'll use the revised numbers unless there is some reason to go back to the old ones.

Bob W.

From: clayton.shedrow [REDACTED]
Sent: Monday, May 05, 2008 9:47 AM
To: Dimarzio, John A.
Cc: greg.burbage [REDACTED]; drew.grainger [REDACTED]; linda.nass [REDACTED];
betsy.westover [REDACTED]; dianne.barnes [REDACTED];
perjetta.hightower [REDACTED]
Subject: Fw: Revised Air Emissions Information for the Immobilization
Module for PuD SEIS:

John

Revised air emissions data for PuVit. If you have any questions, please contact Greg Burbage or Linda Nass.

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LIMITED DISTRIBUTION: this info is not approved for further distribution without written approval of WSRC.

Thanks.

C. Barry Shedrow

[Redacted]

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----- Forwarded by Clayton Shedrow [Redacted] on 05/05/2008 09:42 AM

Greg
Burbage [Redacted]
[Redacted]

To
Clayton Shedrow [Redacted]
05/05/2008 09:26 AM cc
Clayton Holloway [Redacted], Linda
Nass [Redacted], Betsy Westover [Redacted]
Dianne Barnes [Redacted]
Subject
Revised Air Emissions Information for the
Immobilization Module for PuD SEIS:

Barry,

Linda Nass has very conscientiously reviewed some of the information that she provided earlier to SAIC on the "Immobilization" (PuVit) data call for air emissions. Based on her review, she has revised some calculations and provided them to me. I am forwarding these to you below. Please forward them to SAIC immediately, if possible, and should there be questions, call me or Linda directly. Thanks.

After reflection, I realized that some of the information I provided for the PuVit portion was incorrect. I provided only the emissions for 1 melter (not 10) and this was after the hepa and sandfilter. Also, the correct emissions for the diesel generators is provided below.

I've provided the corrected information below for items 19 and 19a, respectively.

19)

There will be 3 diesel generators (1 for operations and 2 for fan house). These will be used for emergency/standby power only. Line power will be used to operate the facility under normal conditions.

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* Denotes Criteria Pollutants. Based upon emergency operation only, the projected emissions are below the Criteria Pollutant levels.

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 These emissions have not been included in the next block.

19a) Other than PM, there are no 'Criteria' pollutants except those from the operation of the emergency generators. These emissions are provided in the previous block.

This process will include 2 DMO furnaces and 10 melters.

HAPS:

$$\text{Ni/NiO} = 6.337\text{E-}05 \text{ kg/yr}$$

These are the projected rad emissions from the process after the airflow has gone through Hepa filtration and the sand filter.

Radionuclides =

| Nuclides | Curies (without Hepa/SF) | Curies (w/Hepa/SF) |
|----------|--------------------------|--------------------|
| Np237 | 8.531E-04 | 8.531E-07 |
| Pu238 | 4.749E-02 | 4.749E-05 |
| Pu239 | 5.081E-03 | 5.081E-06 |
| Pu240 | 5.683E-03 | 5.683E-06 |
| Pu241 | 1.427E-01 | 1.427E-04 |
| Pu242 | 2.757E-05 | 2.757E-08 |
| Am241 | 6.777E-01 | 6.777E-04 |

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| | | |
|-------|-----------|-----------|
| Total | 8.795E-01 | 8.795E-04 |
|-------|-----------|-----------|

PSD pollutants: Be/BeO, Fluorides, and PM/PM-10 (all are well below trigger levels)

SCDHEC Std 8 (Toxic Pollutants): HCl, Be/BeO, Ni/NiO

Linda S. Nass



| Pollutants | 250 kW DG (tpy) | 2 - 810 kW DGs (tpy) | Total (tpy) |
|-------------------|-----------------------|----------------------------|----------------|
| NO _x * | 2.60 | 13.03 | 15.63 |
| CO * | 0.56 | 2.99 | 3.55 |
| SO _x * | 0.17 | 4.39 | 4.57 |
| PM * | -- | 0.38 | 0.38 |
| PM-10 * | 0.18 | -- | 0.18 |
| CO ₂ | 96.39 | 630.01 | 726.40 |
| Aldehydes | 0.04 | -- | 0.04 |
| TOC | 0.21 | 0.38 | 0.59 |